

09/419,752

Page 3 of 26

Remark:

Claims 86-176 are rejected under 35 U.S.C. 101 because the claimed invention is "directed to non-statutory subject matter". The office action indicated that the subject claims merely manipulate an abstract idea (data tables) without a claimed limitation to a practical application. The examiner is respectfully requested to reconsider the ground of rejection according to the following discussions and the **SOLID EVIDENCES** proofing that the subject claims had really comply with the requirements of 35 U.S.C. 101.

(A) Anatomy of a claim:

Most technology or research oriented inventions are complex in nature. It is well known that it will be impossible for the claim of an invention to fully describe the complex detail of an invention. Accordingly, the law provided abundance space in the specification section of a patent application for an applicant to describe the invention in detail. The purpose of the claim section is for the applicant to define the scope of his invention, which the applicant seeks patent protection. When an invention is related to a prior art, the claim section also serves the purpose for an applicant to outline the characteristics how the subject invention defines over a reference prior art. The block diagram below represents typical structure of a claim:

Part A: Common name of the article invented as known by a person having ordinary knowledge of the art; Part A may further include a description or field of use to further define the named article invented PLUS

Part B: Characteristics to define the subject invention over related prior art.

09/419,752

Page 4 of 26

This two parts structure of a patent claim is well known and well accepted in the patent systems of established countries including EPO and USA.

When 35 U.S.C. 101 is considered, proper generic name of the invented subject is provided in Part A. This part determines if the claim comply with the requirements of 35 U.S.C. 101. Part B merely describes how the claimed invention is distinguished from any related prior art.

(B) Real world example of claimed article and process:

The subject invention claimed a programming tool. This programming tool is then further specified in a field of use clause as to program a computing device. Method claims of the subject invention directs to methods of programming a computing device as provided by such programming tool. Appendix A submitted in this response is a real world example of a "programming tool" provided to program the EM57000 series of computing devices. The purpose of Appendix A submission is to provide SOLID evidence to proof that such "programming tool" is a real world article that comply with the requirements of 35 U.S.C. 101.

Listed below is a brief description of Appendix A:

- (a) the cover page and the inner cover indicates the origin of the published user guide of programming tool, or development system for programming the EM57000 series of computing devices. Development system are common known by any ordinary person having ordinary to be a programming tool provided for programming a computing device.
- (b) Chapter 1, page 2, and chapter 2, page 8 illustrate the hardware arrangement of the EM57000 programming tool provided to program the EM57000 series of computing devices.
- (c) Chapter 3, page 15, indicated that the programming tool is capable to support development using assembly program represented by USERNAME.ASM type of programs. This type of programming tool represents a typical prior art programming tool system when the subject invention was invented. This page also indicated that the programming tool is capable to work with USERNAME.ESY type of programs, which make use of the invented technology.
- (d) Chapter 7, page 43 illustrates the configuration of the programming tool to work with the ASM environment, which is a typical example of prior art programming tool.

09/419,752

Page 4 of 26

This two parts structure of a patent claim is well known and well accepted in the patent systems of established countries including EPO and USA.

When 35 U.S.C. 101 is considered, proper generic name of the invented subject is provided in Part A. This part determines if the claim comply with the requirements of 35 U.S.C. 101. Part B merely describes how the claimed invention is distinguished from any related prior art.

(B) Real world example of claimed article and process:

The subject invention claimed a programming tool. This programming tool is then further specified in a field of use clause as to program a computing device. Method claims of the subject invention directs to methods of programming a computing device as provided by such programming tool. Appendix A submitted in this response is a real world example of a "programming tool" provided to program the EM57000 series of computing devices. The purpose of Appendix A submission is to provide **SOLID** evidence to proof that such "programming tool" is a real world article that comply with the requirements of 35 U.S.C. 101.

Listed below is a brief description of Appendix A:

- (a) the cover page and the inner cover indicates the origin of the published user guide of programming tool, or development system for programming the EM57000 series of computing devices. Development system are common known by any ordinary person having ordinary to be a programming tool provided for programming a computing device.
- (b) Chapter 1, page 2, and chapter 2, page 8 illustrate the hardware arrangement of the EM57000 programming tool provided to program the EM57000 series of computing devices.
- (c) Chapter 3, page 15, indicated that the programming tool is capable to support development using assembly program represented by USERNAME.ASM type of programs. This type of programming tool represents a typical prior art programming tool system when the subject invention was invented. This page also indicated that the programming tool is capable to work with USERNAME.ESY type of programs, which make use of the invented technology.
- (d) Chapter 7, page 43 illustrates the configuration of the programming tool to work with the ASM environment, which is a typical example of prior art programming tool.

09/419,752

Page 5 of 26

- (e) Chapter 9, page 131 illustrates the configuration of the programming tool to work with the ESY environment, which makes use of interactive State and Path tables, the characteristics of the invented programming tool. This chapter provides SOLID EVIDENCE that Interactive State table and Path tables adds new life to prior art programming tool.

As a summary, the programming tool of Appendix A has the following characteristics:

- (a) It allows a user to program the EM57000 series of computing devices with assembly language (ASM), this is a typical example of prior art programming tool.
- (b) It is also capable to translate programs presented in claimed table format (ESY - Easy Format) into codes executable by the EM57000 series of computing devices.

(C) Anatomy of the subject claims:

Since 35 U.S.C. 101 is determined by the nature of Part A of a claim as discussed above, Part A and Part B of the subject independent claims are evaluated as follow:

Part A of claim 86 is specifically directed to a "programming tool" which is a common term well known to any person having ordinary knowledge in the art. Part A of claim 86 is then further supplemented by a field of use statement stating this programming tool is configured for programming a computing device;

Part B of claim 86 provides characteristics for the subject invention to define over all other prior art programming tools available in the market. These characteristics are defined by the State table and Path table and further supplemented by any of the ten characteristics enlisted. Once the structure of claim 86 is made clear, the next step is to determine if the described "programming tool" is an abstract idea according to a person having ordinary skill in the art. Even the field of use statement (for programming a computing device) is not considered, it is very obvious that every ordinary person having ordinary knowledge in the art knows that "programming tool" is a real world article required by any programmer to program a computing device.

09/419,752

Page 6 of 26

Once the status of main independent claim 86 is clarified, all other independent claims are actually alternate embodiment or method claims of the main independent claim 86. Their relationship are summarized as follow:

Part A of claim 89: a "system" comprising a computer accessible memory that was programmed by the invented programming tool;

Part A of claim 92: method claim (of a programming tool) to program a computing device;

Part A of claim 114: method claim (of a programming tool) to program a computing device executing multiple programs;

Part A of claim 120: method claim (of a programming tool) to program a remote computing device;

Part A of claim 129: a "system" having multiple processors programmed by the characteristics of the invented programming tool;

Part A of claim 135: a method to provide a compiler required by a programming tool;

Part A of claim 148: method claim (of a programming tool) to program a computing device;

Part A of claim 154: method claim (of a programming tool) to program a computing device;

Part A of claim 170: method claim (of a programming tool) to provide custom expressions;

Part A of claim 175: method claim (of a programming tool) to program a computing device.

Appendix A provides a real world example of a "programming tool" as claimed, provided to program the computing devices of EM57000 series as stated in the supplemental field of use; this is a **SOLID EVIDENCE** that the main claim 86 claimed a real world articles that complies with the requirements of 35 U.S.C. 101. If the rejection of the main claim 86 according to 35 U.S.C. 101 is to be withheld, the examiner is respectfully requested to provide evidence that the "programming too" claimed is **NOT** a real world article, or an abstract idea.

(D) Ground of rejection indicated by the office action:

The previous actions indicated that the claims, each taken as a whole, are directed to an abstracted idea that is not applied to or limited by other physical elements or process steps. The abstracted idea in this conclusion refers to "data tables" without claimed limitation to a practical application. Listed below are the remark to the alleged ground of rejection

(a) The office actions rely on Part B of a claim, and ignore part A of the claim:

09/419,752

Page 7 of 26

The prior office actions erred in relying on Part B of a claim to determine the nature of the claim. Part A of the claim is the real part, which defines the nature of the claimed invention. The examiner is respectfully requested to focus in Part A - "the programming tool", and the supplemental field of use stated - "for programming a computing device" to determine if the claimed article is an abstract idea. Submitted example of "programming tool" in Appendix A that concurred with the claimed field of use (to program the EM57000 series of computing devices) further proved that the programming tool claimed in Part A of the independent claim is a real world utility article that satisfy the requirements of 35 U.S.C. 101. "Data table" - the abstract idea referred by the office action in Part B merely serve the purpose for identifying the differences between the claimed "programming tool", as compared with any prior art programming tool available in the market. Accordingly, the office action erred in focusing into Part B of the claims and ignored Part A of the claim, which defines the nature of the claimed invention. Accordingly, the ground of rejection of the main independent claim 86, its alternate claims and method claims according to 35 U.S.C. 101 (that the subject claims to be abstract ideas) is respectfully requested to be withdrawn.

(b) Utilization of "interactive tables" in a programming tool is NOT an abstract idea:

The office action erred in regarding the table content of the present invention to be "data tables". The specification clearly disclosed two main classes of tables: the state tables which specifies qualifying conditions; and the path tables which provide instructions for the computing device to perform when a qualified condition is satisfied. The subject invention also introduced multitask tables and other interactive associate tables. Each table when exists alone cannot provide any utility. However, when the "interactive tables" of different types of natures are properly provided in the invented programming tool, the interaction between the tables enable the programming tool to generate program codes that are executable by the computing device to be programmed. The specification clearly describes the benefits for providing the "interactive tables" to the programming tool. Accordingly the office action erred in regarding the tables to be simply data tables and overlooked the different interactive characteristics of the different type of tables as the Part B characteristics for the claimed programming tool to distinguished from other programming tool in the market.

09/419,752

Page 8 of 26

Page 131, chapter 9 of Appendix A illustrates an example how the Interactive State and Path tables can be added to a programming tool of Appendix A to program the EM57100 - EM57700 series of computing devices. This is **SOLID** evidence of a real life article that programming tools equipped with interactive tables, the characteristics of the subject claims, has real world applications. Accordingly, the ground of rejection of the subject claim according to 35 U.S.C. 101 that the subject claims to be abstract ideas is again respectfully requested to be withdrawn.

(E) Proper Procedure to determine compliance of 35 U.S.C. 101:

It seems that the examiner is confused by the fundamental difference between "a pure table of data" and the process of programming tool having interactive tables as claimed. The applicant agrees that a table of data without specifying how the table is utilized is an abstract idea that has no physical application. However, the main claim 86 does not claim purely a pure table of data. The applicant clearly claimed a "programming tool" for the main independent claim 86. The law further allows reduction of abstract ideas (the tables) into real world applications (together with programming tools) to be patentable. The examiner is respectfully request to study carefully the examination procedure as outlined in MPEP 2106 IV. C. 1. to 2106 IV C. 3, MPEP 2107 I. A. to 2107 I. B and the complete section of MPEP 2107.02.

Listed below is a quotation of MPEP 2106 IV. C:

While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be.

Examination procedure to determine compliance with 35 U.S.C. 101:

The next step is to determine how the MPEP specifies the procedure to determine is a claim satisfies 35 U.S.C. 101. Listed below is a quotation of MPEP 2107.02 III A. and *In re Langer*, 503 F.2d 1380, 183 USPQ 288 (CCPA 1974):

As a matter of Patent Office practice, a specification which contains a disclosure of utility which corresponds in scope to the subject matter sought to be patented must be taken as sufficient to satisfy the utility requirement of §101 for the entire claimed subject matter unless there is a reason for one skill in the art to question the objective truth of the statement of utility or its scope.

09/419,752

Page 9 of 26

In page 2, point 3, second paragraph of the office action dated 03/22/2007, the office action recited that:

A review of application 09/419,752 shows the disclosed invention thereof to be a method for programming a computing device. This is a practical application within the technological art.

With this express acknowledgement, the office action had acknowledged that the subject application had already satisfied the requirement of §101 according to MPEP 2107.02 III A. and *In re Langer*, 503 F.2d 1380, 183 USPQ 288 (CCPA 1974).

As recited in the subject main independent claim 86, the subject application is "specific" to a method to program a computing device, more specifically a "programming tool". Programming tool is a programming device that interfaces between programmers and computers. After the statement of utility is identified as mentioned above to support the "specific" requirement of the law, the examiner is required by the examination procedure to evaluate the credibility of an asserted utility to satisfy the "substantial" requirement of the law.

The previous submitted evidence for programming tool equipped with table format programming capability (under the trademark Easy Format) to achieve great success in the field further proved the specific and substantial utilities of the subject application. Accordingly the subject application satisfies all the procedural requirements indicated in MPEP 2107.02 to comply with 35 U.S.C. 101. If the examiner does not agree on this procedure of determining compliance of 35 U.S.C. 101, the examiner is respectfully requested to provide reasoning and supporting evidence why:

- (a) The examination procedure specified by MPEP 2107.02 should be discarded?
- (b) Why the claimed programming tool that achieves great field success can be an abstract idea?

(F) The office action dated 03/22/2007 failed to comply with the requirement of 37 C.F.R. 1.104(b) and MPEP 707.07(a):

Listed below is a quotation of 37 C.F.R. 1.104(b):

09/419,752

Page 10 of 26

"Completeness of examiner's action....The examiner's action will be complete as to ALL matters.....".

Listed below is a quotation of MPEP 707.07(a):

"Completeness and Clarity of Examiner's Action.... The examiner's action should be complete to ALL matters...."

Listed below is a quotation of MPEP 707.07(d):

"IMPROPERLY EXPRESSED REJECTIONS:
An omnibus rejection of the claim... is stereotyped and usually not informative and should therefore be avoided. This is specially true where certain claims have been rejected on one ground and others on another ground.

The office failed to provide detailed description how **EACH** of the independent claims failed to comply with the requirements of 35 U.S.C. 101. Each independent claim carries different characteristics. How can a **SINGLE** and **SIMPLE** omnibus rejection of **ALL** independent claims of different structures or methods to be possible, without properly addressing **EVERY** characteristics claimed in each independent claim? Listed below identify the specific claimed language that supports the compliance of 35 U.S.C. 101.

Claim 86:

Claim 86 explicitly recites a *"programming tool"* as a specific utility of the subject claim. The specific Part A claim limitation defines the nature of the claimed article. Appendix also provide **SOLID EVIDENCE** that the claimed programming tool had real world application that satisfies 35 U.S.C. 101.

Claim 89:

Part A of claim 89 recites a **"system"** comprising a computer accessible memory that was programmed by the invented programming tool. Independent claim 89 was amended according to the recommendation of the examiner in a previous telephone interview. This claim now recites a *"computer accessible memory means or media"* that the examiner had indicated to be able to overcome 35 U.S.C. 101. Although the applicant faithfully follow the recommendation of the examiner to amend the subject claim, this claim is rejected under the same ground without further explanation why the amendment does not overcome the ground of rejection. This flip-

09/419,752

Page 11 of 26

flop practice of examination process without clear explanation as required by 37 C.F.R. 1.104(b) leads the applicant into a very confusing situation how to address a proper response.

Claim 92:

Part A of claim 92 refers to method claim version of the corresponding programming tool to program a computing device. The subject claim also explicitly recites the "pre-computer activities of":

- (a) predefining qualifying conditions;
- (b) defining objective of a path;

Claim 114:

Part A of claim 114 is a method claim for the corresponding programming tool to program a computing device executing multiple programs. The subject claim also explicitly recites the "pre-computer activities of defining a pre-computer objective".

Claim 120:

Part A of claim 120 is a method claim for the corresponding programming tool to program a remote computing device. The subject claim further explicitly recites the "pre-computer activities of defining a pre-computer objective" and "for a remote computing device to perform said predefined objective". The pre-computer process to define a pre-computer objective and for a remote computing device to perform said predefined objective had been clearly described in the specification. The specification further described how this pre-computer activity is utilized in the programming process in the application of generating an executable program.

Claim 129:

Part A of claim 12 directs to a "system" having multiple processors programmed by the characteristics of the invented programming tool. The subject claim explicitly recites *"a system having multiple computing devices comprising a first processor and a second processor wherein said first processor is configured to execute at least part of a table format program defined by m configuration states interact with n paths"*.

Evidence for real world programming system in Appendix A proved that interactive State and Path tables are worthwhile characteristics of a programming for a programmer to program a

09/419,752

Page 12 of 26

computing device. The subject claim is so **OBVIOUS** to be a real world working system that has specific utility. The office action failed the requirement of 37 C.F.R. 1.104(b) by merely indicating in an omnibus rejection that the limitation of claim language of claims 88 to 176 failed to comply with 35 U.S.C. 101 without explaining or proving how **EVERY** specific characteristics of claim 129 and the claim as a whole are merely abstract idea.

Claim 135:

Part A of claim 135 directs to a method claim to provide a compiler required by a programming tool. The subject claim explicitly recites the "post computer activity to generate a program suitable to be executed by a second computing apparatus or device".

Claim 148:

Part A of claim 148 directs to a method claim of the corresponding programming tool to program a computing device; the subject claim further explicitly recites the "pre-computer activities" of:

- (a) defining pre-computer programming objective; and
- (b) selecting a programming language.

The subject claim also explicitly recites the post-computer activity to provide a program executable by said computing apparatus (the result generated by the claimed process).

Claim 154:

Part A of claim 154 directs to a method claim of the programming tool to program a computing device. The subject claim explicitly recites the "post-computer activity to provide a program executable by said computing apparatus or device" (the tangible result generated by the claimed process, also the purpose of providing the programming tool/method as claimed).

Claim 170:

Part A of claim 170 directs to a method claim for the corresponding programming tool to provide custom expressions. Claim 170 recites a tangible application to facilitate the identification of a predetermined type of custom expressions. Characteristics of this application are recited in the subject claim. Detailed disclosure how this specific application is implemented had been described in the specification. Accordingly the office action failed to comply with the

09/419,752

Page 13 of 26

requirement of 37 C.F.R. 1.104(b) to explain why the tangible application is an abstract idea that offers no real world benefit.

Claim 175:

Part A of claim 175 directs to the method claim of a corresponding programming tool to program a computing device. The subject claim explicitly recites the "post-computer activity to provide a program executable by said computing apparatus or device" (the tangible result generated by the claimed process, also the result generated by the claimed programming tool/method).

09/419,752

Page 14 of 26

Claim 176:

The subject claim explicitly recites a specific system "having a first computing device connected with a second remote computing device" and "memory means" storing digital data executable by said first or second computing devices, and said data comprising representation of a table format program. Solid evidence in previous submission and also Appendix A proved that interactive programming tool having table format program has real world application. The office action merely indicated in an omnibus rejection that the limitation of claim language of claims 86 to 176 failed to comply with 35 U.S.C. 101 without explaining how the characteristics of the specific real world system described in claim 176 is completely an abstract idea in view of the solid evidences provided.

Since every independent claim carries different claimed characteristics as identified above, how can a short and simple omnibus rejection be able to explain the reason of rejection behind all these different characteristics. It is a **FACT** that the office action dated 03/22/2007 did **NOT** explain how each of the different characteristics of different independent claims as identified above can be rejected under 35 U.S.C. 101. If the same ground of rejection is to be maintained, the examiner is respectfully requested to provide convincing reasons why each different characteristics of the above Independent claims and the corresponding argument provided above failed to satisfy the requirement of 35 U.S.C. 101?

(G) The office action dated 03/22/2007 failed to comply with the requirement of MPEP 2107.02 VI.:

Listed below is a quotation of *MPEP 2107.02 VI.*

*It is **ESSENTIAL** for office personnel to recognize, fully consider and respond to each substantive element of any response to a rejection based on lack of utility.*

The applicant had gone through a comprehensive listed of supporting evidences during the telephone interview December 28, 2006. Please refer to the Record of Interview submitted. The applicant further submitted additional solid supporting evidence in section (D), page 17 of the response dated 01/07/2007. All the pending claims are then further compared and grouped into five types of characteristics, each satisfies the requirement of 35 U.S.C. 101 under section (G) and page 19 or applicant's response dated 01/07/2007. The final office action dated 03/22/2007 does **NOT** respond nor comment to each evidence or argument supplied. The

09/419,752

Page 15 of 26

practice of ignoring or not properly responding to EACH of the evidences submitted put the applicant in a very difficult position – unable to determine the next action without knowing what is in the mind of the examiner towards each these evidences and substantive elements submitted. Accordingly if the rejection according to 35 U.S.C. 101 is to be maintained, the examiner is respectfully requested to provide comments towards EACH of the evidences, and to provide reasons why each of these evidences failed to support the corresponding claim to overcome the ground of rejection.

(H) Pre-computer and post computer activities:

The office action merely indicated in an omnibus statement that the examiner did not concur that there are pre or post computer activities occurred in the claimed process. The example given by the office action stated that the pre-computer activities are not transformed outside of the computer to transform into computer data. The office action further stated that the claimed pre-computer activities do not measure any physical objects.

It should be noted that a pre-computer activities that measure physical objects is only one type of many different types of pre-computer activities. There are other types of pre-computer activities that are necessary in the process of different invented systems to fulfill the computing goal of other different systems. The key point here is to determine if the pre-computer activity a necessary step for the claimed invention to completed the target services provided by the invented article. For the subject application, the proper step is to evaluate and determine if the claimed pre-computer activities are essential steps for the claimed "programming tool" to program a computing device, or is it a necessary step of a programming method for the invented programming tool to program a computing device?

When the pre-computing activities of claims 92, 114, 120 and 146 are evaluated, it can be easily found that if these pre-computing activities actually corresponds to "pre-programming tool activities". If these pre-computer activities are not performed, the invented "programming tool" or the associated programming method provide by this programming tool will NOT be able to provide executable codes for the computing device to be programmed – to achieve the goal of the invention. It means these pre-computing activities are necessary steps to provide the proper qualifications and instructions required by the State and Path tables, so as for the programming tool to convert the programmed State and Path tables into executable codes for

09/419,752

Page 16 of 26

the computing device according to the programming objective. It also means these pre-computing activities performed outside the "programming tool" did transform necessary data (variable content combination of the State and Path tables) for the "programming tool" to further transform the necessary data (the resulted State and Path tables) into codes (data) executable by the computing device to be programmed. With this clarification, if the pre-computer activities recited in the subject claims are not still not acceptable, the examiner is respectfully requested to explain why the pre-computer activities identified in section F above did not provide data for the computer (the programming tool) to complete the programming function required?

Concerning post computer activities, the examiner is respectfully requested to note that the general term "post computer activities" in this invention corresponds to "post programming tool activities". The office action seems to notify the applicant that accepted post-computer activities should process **ALL** the following three characteristics:

- (a) the post computer activity must be a physical act performed outside the computer; and
- (b) the physical act must be independent of a computer program; and
- (c) the physical act must follow the steps of a computer program.

If these requirements are true, the post computer (post programming tool) step of providing executable codes to the computing apparatus or device to be programmed by the programming tool clearly meets all the three requirements stated. Program memory of the computing device are located outside the programming tool, so filling the computing device with executable code is a step performed outside the programming tool. Filling the program memory of the computing device with executable code is also a step that is independent of the program (table format program) provided to the programming tool. Finally, filling the program memory of a computing device is clearly a physical act that follows the step for the programming tool to transform the table format program. The applicant has three important questions about this analysis:

1. Did the office action indicated that **ONLY** post computer activities meeting the above three necessary characteristics are qualified post computer activities?
2. Where in the patent law or guideline indicated that only the post computer activities meeting the above three conditions are acceptable?
3. After careful analysis, the claimed post computer activities clearly satisfies the above three characteristics, then why the office action cannot concur with the post computer activities recited in the claims 135, 154 and 175?

09/419,752

Page 17 of 26

Clarification of the above three questions are respectfully requested.

(I) Disclosure requirements:

Finally, the office action also indicated the subject application failed to disclose specific hardware, specific software, or a combination thereof for performing the claimed functions. This is not exactly true, in the specification, under the "Background of the invention", the disclosure clearly specified that the subject application directs to a programming tool (a specific type of hardware) that is designed to interface between programmers and computing devices for programming other computing devices. Any hardware that is able to service the specified function (such as that submitted in Appendix A) is a qualified hardware. The specification also recites the function of the programming tool to handle programming languages and compilers for a user to program a computing device. The situation is analogous to the invention of a "new braking system" of an automobile. The requirement of the office action is similar to asking an applicant to fully describe the structure hardware of the automobile when he/she simply wishes to claim his/her invented braking system. Certainly the applicant does not wish to limit the claim scope of the new braking system to be limited to a particular type of automobile structure. It is perfectly acceptable by the patent law for the applicant to recite that the claim scope is directed to the braking system of any automobile and then proceeds to fully describe and claim the characteristics of the new braking system invented. As long the invention is directed to the braking system of an automobile, the patent law does not require the applicant to further spend time and paper to describe all other FULL structures of an automobile. The law wishes the disclosure of the patent application to be focused in the structure and the resulted benefits of the invented new braking system. Similarly for the subject application, the law requires the applicant to describe in detail the interactive State table, Path tables and other accessory tables that serves the purpose to define the subject programming tool over other prior art programming tools available in the market. As the law does not require an inventor of a braking system to describe great detail of the FULL structure of an automobile, similarly the law does not require the applicant to provide full detail description of the hardware structure of commonly known prior art programming tool available in the market. In this application, the term "programming tool" for a user to program a computing device is so well known to any programmer or any person having ordinary skill in the art, to be any facility that enable a user to program a computing

09/419,752

Page 18 of 26

device. The examiner should treat the scope of claim to EVERY programming tool that enables a user to program a computing device. Most important, the main independent claim 86 had already defined the invented article to be a programming tool that has well known proven utility and therefore satisfies the requirement of 35 U.S.C. 101.

According to the above discussion, the ground of rejection under 35 U.S.C. 101 is respectfully requested to be withdrawn. If this ground of rejection is to be withheld, the examiner is respectfully requested to provide:

- (a) Reasons why EACH of the evidences submitted in the previous responses are not valid?
- (b) Reasons why the necessary pre-computer and post-computer activities recited in the corresponding claims are not required in the claimed programming process of the invented programming tool?
- (c) Reason why determination of the nature of a claim should be conducted according to Part B of a claim instead of Part A of the claim as discussed above?

[End of remark]

09/419,752

Page 19 of 26

APPENDIX A

09/419,752

Page 20 of 26



USER'S GUIDE

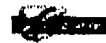
EM57000
Series V3.5

**Integrtated
Development
System**

ELAN MICROELECTRONICS CORP.

09/419,752

Page 21 of 26



Trademark Acknowledgments

IBM is a registered trademark and PS/2 is a trademark of IBM.

Microsoft, MS, MS-DOS, and Windows are registered trademarks of Microsoft Corporation.

Easy Sound is a registered trademark of ELAN Microelectronics Corp.

© 2001 ELAN Microelectronics Corp.

All Rights Reserved

Printed in Taiwan, ROC 2001

The material in this manual is subject to change without notice. ELAN Microelectronics assumes no responsibility for errors that may appear in this manual. ELAN Microelectronics makes no commitment to update, nor to keep current, the information contained in this manual. The software described in this manual is furnished under a license or nondisclosure agreement, and may be used or copied only in accordance with the terms of the agreement. No part of this manual may be reproduced or transmitted in any form or by any means without the express written permission of ELAN Microelectronics.

ELAN MICROELECTRONICS CORPORATION

Hsinchu Headquarters
No. 12, Innovation 1st Rd.,
Science-based Industrial Park
Hsinchu 300, Taiwan, ROC
Phone: +886 3 553-9977
Fax: +886 3 578-0617
<http://www.emc.com.tw>

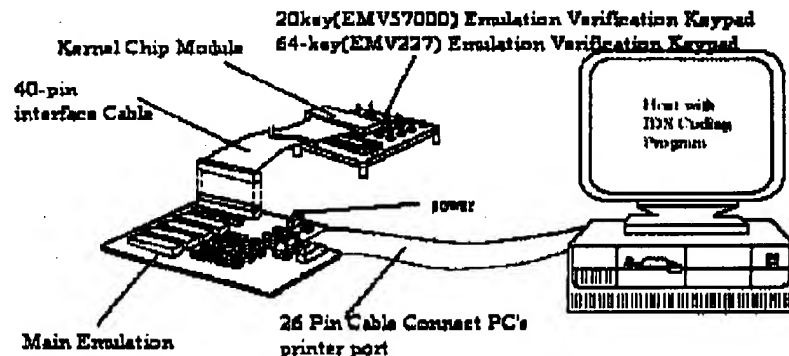
Hong Kong Office
Rm.1005B, 10/F., Empire Centre, 68 Mody Road,
Tsimshatsui, Kowloon,
Hong Kong
Phone: +852 2838-8715
Fax: +852 2838-0497

09/419,752

Page 22 of 26

Chapter 1

1.1 Hardware Architecture



All Overview of EM57000 integrated Development System(IDS)

The complete set of IDS system comprises of the following hardware modules, cables (see figure above), and software:

- A Main Emulation Board 2.1
- A Verification Module, consisting of Kernel Chip Module (EMM57000) and the 20-Key Emulation Verification Keypad (EMV57000) or the 64-Key Emulation Verification Keypad (EMV227KB)
- An IDS to PC Interface Cable with 26-pin printer port
- A Main Emulation Board to Verification Module Interface Cable with 40-pin connectors at both ends
- One 3.5" diskette containing the IDS Coding Program

1.1.1 Main Emulation Board

The Main Emulation Board connects to the host computer through the printer port and the interface cable

The emulator houses the components that allow the IDS to perform coding without the traditional burning of EPROM's. This method saves time and effort in the development of EM57000 series chips. It supports emulation for all series of EM57000 chips.

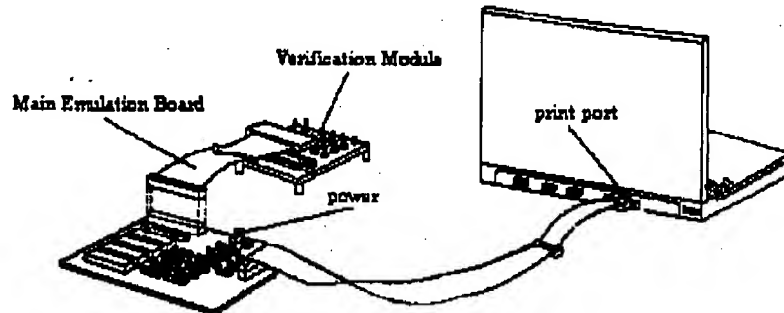
User can download program and voice data from host to Main Emulation Board. It then tests and verifies functional quality of such data in the Verification Module.

09/419,752

Page 23 of 26

Chapter 2

2.2 Connecting IDS with Host Computer



Linking IDS with Host Computer

The IDS connects to the host through the IDS Emulation Board to PC Interface Cable. As illustrated above, the 26-pin connector at one end of the cable is plugged into the PRN-CON connector of the Main Emulation Board. At computer side, the other end of the cable is connected to the host printer port as shown above (using the cable 26-pin connector). This, however, will require an external +5VDC power source (battery or power adapter) to provide power to Main Emulation Board and Verification Module.

WARNING!

Before applying power to host or emulator board, ensure that all Interface Cable connectors are correctly plugged into their corresponding connectors on host and Emulation Board to prevent damage to the equipment.

2.3 Connecting Emulation Board with Verification Module

NOTE

Remove EPROM and external power (if installed) from the EMM57000 Kernel Chip Module.

09/419,752

Page 24 of 26

Chapter 3

Chapter 3

Getting Started with IDS Coding Program

3.1 IDS Coding Program Installation

Install program as described in Section 2.5 of Chapter 2.

3.2 User Source Files Format

The IDS Coding Program requires that user's source files conform to the following format:

File Type	Required File Extension	Description
Assembly Program	USERNAME.ASM	Assembly program to control EM57000 series chips.
Easy Format Program	USERNAME.ESY	Easy format program to control EM57000 series chips.
Melody File	USERNAME.MLD	Text type melody section file.
	USERNAME.MDY	Binary type melody section file that can be used without translation.
Sound Effect File	USERNAME.SND	Graphic type sound effect section file.
	USERNAME.SDY	Binary type sound effect section file that can be used without translation.
Speech File	USERNAME.XXX*	PCM or EMC's VDS format speech section file.

* Filenames for speech files may end with any extensions except "BIN" or "LAY". Speech files, including "RAW DATA" format, "WAV" format, or EMC's SCS (VDS) format are supported. IDS Coding Program will be able to auto-detect speech files under these formats.

09/419,752

Page 25 of 26

Chapter 7

Chapter 7

Processing ASM Programs for EM57000 Series

7.1 Writing an Assembly (ASM) Program

7.1.1 File Format

The following is the Assembly file format profile applicable to EM57000 series chips.

; Comments	
PROGRAM	; 1) Format identification
Section_name1	; 2) Section definition
Section_name2	
EM57100	; 3) Chip identification
String EQU #0001b	; 4) EQU definition
String1 EQU m0	
POWERON:	; 5) Main assembly program begins
INIT:	

09/419,752

Page 26 of 26

Chapter 9

9.2.4 Example 4: LEVEL HOLD (trigger 1 to trigger 4) – Repeated playing, Retriggerable by the other pins in EASY-12 Format

EASY-12

ONE.WAV 7K
 TWO.WAV
 THREE.WAV
 FOUR.WAV

EM57100**TR_STATE**

;Statename	Tr1	Tr2	Tr3	Tr4	Tr5	Tr6	Tr7	Tr8...Tr12
STATE0:	P1	P2	P3	P4	X	X	X	XXXXXX
STATE1:	/P11	P2	P3	P4	X	X	X	XXXXXX
STATE2:	P1	/P11	P3	P4	X	X	X	XXXXXX
STATE3:	P1	P2	/P11	P4	X	X	X	XXXXXX
STATE4:	P1	P2	P3	/P11	X	X	X	XXXXXX

OUT_STATE

OUT0: P3=[0 0 0 0] P2=[0 0 X X]
 OUT1: P3=[1 1 1 1] P2=[1 1 X X]

PATH

PATH0: OUT0 STATE0 END
 P1: OUT1 STATE1 ONE.WAV P1
 P2: OUT1 STATE2 TWO.WAV P2
 P3: OUT1 STATE3 THREE.WAV P3
 P4: OUT1 STATE4 FOUR.WAV P4
 P11: OUT0 STATE0 END